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ABSTRACT

This study addressed the question of how much graduation rates would improve if new students were followed for 10 instead of four or six years from their date of first enrollment; it also compared enrollment and graduation patterns of new freshmen and new transfers to see if graduation rates were similar after 10 years. Participants were all undergraduate degree-seeking students enrolled at Boise State University (Idaho) for the first time in fall 1989; 1,692 were new freshmen and 767 were new transfers. The study results confirmed that most school leavers left during the first year. For students who continued to enroll, about 45 percent of freshmen and 38 percent of transfers showed a pattern of enrolling, leaving, and then returning. Both new freshmen and transfers also switched between full- and part-time enrollment status, although transfer students showed a more consistent pattern and had higher graduation rates. While only 11 percent of freshmen and 28 percent of transfer students had graduated after four years, graduation rates improved when examined over the 10-year period; after 10 years 41 percent of new transfer students had graduated compared to 33 percent of new freshmen. Appendix tables and charts present enrollment and graduation information. (SM)

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ED 443 340

Ten Year Enrollment and Graduation Patterns for 1989 New Freshmen and Transfers

Research Report 99-04

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HE 033 067

Ten Year Enrollment and Graduation Patterns For 1989 New Freshmen and Transfers

Abstract

This study addressed the question of how much graduation rates would improve if new students were followed for ten years instead of the traditional four or six years from the date of first enrollment. It also compared enrollment and graduation patterns of new freshmen and new transfers to see if the graduation rates were similar at the end of ten years. Among the findings:

- About 57% of new freshmen and transfers re-enrolled one year later. The first year saw the sharpest decline in enrollment, with almost all attrition occurring in the first three years. (Current persistence figures remain similar.)
- Students who failed to return one year later were still likely to re-enroll at Boise State at another time. About 68% of freshmen and 75% of transfers who were gone during Fall, 1990, enrolled during a later term.
- After eliminating students who enrolled for only Fall 1989, about 45% of freshmen and 38% of transfers showed discontinuous enrollment patterns across fall terms.
- For freshmen who enrolled full-time their first semester and re-enrolled, about half were always full-time enrollees. Another third were mainly full-time enrollees. Freshmen who began part-time showed a different pattern. Only about 25% were always part-time, and only 40% were mainly or always part-time.
- Transfers were most likely to graduate after five years, while freshmen were most likely to graduate after six. After ten years, 41% of transfers had graduated compared to 34% of freshmen.
- Freshmen women and minorities had graduation rates that were similar to men and white non-Hispanics. Minority group membership was related to lower graduation rates for transfer students. Enrolling full-time the first semester was related to higher graduation rates for both freshmen and transfer students.

Ten Year Enrollment and Graduation Patterns
For 1989 New Freshmen and Transfers

Persistence and graduation rates have acquired a heightened sense of importance in the current climate of accountability. Federal law, for example, requires institutions to annually report the percentage of full-time students who reach graduation within 150% of the "regular" time to the degree. In the case of four-year programs, this means that students who enroll full-time their first semester are tracked for six years after initial entry. For two-year programs, they are tracked for three years. A number of publications which compare colleges obtain these figures and use them as one indicator of the quality of the institution. Many institutions have argued that these figures are artificial and fail to account for differences in enrollment patterns and student types, particularly at non-residential campuses. Boise State has been one of the institutions to feel the sting of these comparisons.

The purpose of this study was twofold. One purpose was to answer the question of how much our graduation rates improve if longer time periods than the traditional four or six years are employed. We know that our graduation rates lag significantly behind other institutions' rates. For example, the latest six-year graduation rates for first-time full-time freshmen are 19% for Boise State compared to 56% for all Division I schools[1]. One explanation that has been employed is that many students enroll only part-time each semester (currently about 36% of the undergraduate enrollees are part time[2]). In addition, those who work with students report that student enrollment patterns are erratic, with students stopping out for one or more semesters before returning.

A second purpose of this study was to compare the enrollment and graduation patterns of transfer students and freshmen. Anecdotal information has suggested that transfers may be more likely to graduate than freshmen. Typically, a fall class of new undergraduate enrollees consists of about 35% new transfers and 65% new freshmen. Yet graduating classes consist of about 50% transfer students. Transfer students often arrive with some credits completed, so this fact alone

[1] Based on the NCAA report published in *The Chronicle of Higher Education*, September 10, 1999
[2] Based on information provided by Enrollment Services through the undergraduate statistical profile (Fall 1994—1998)

would give them a leg up on graduation. However, if credits alone were the issue, over an extended period of time such as ten years, freshmen should show graduation rates that were relatively equal if credit completion were the only issue.

Who was Studied and How

For purposes of this study, all undergraduate degree-seeking students who enrolled at Boise State for the first time in the Fall of 1989 were selected for the study. Of this group, 1,692 were new freshmen and 767 were new transfers (as indicated by their attendance status code and by the number of credits they were transferring to the institution). Some demographic information on the two groups is provided in Table 1 below.

Table 1. Demographics of 1989 New Freshmen and Transfers

Variable	New Freshmen (N=1692)	New Transfers (N=767)
Percent Coming from in-state	90.2	80.1
Percent White non-Hispanic	89.0	87.1
Percent Minority[3]	8.9	9.3
Percent Female	54.6	53.2
Percent full-time 1st semester	74.8	65.8
Average Age	20.1	24.3
Average 1st Semester GPA	2.17	2.40

Notice that compared to freshmen, new transfers were more likely to come from out of state and less likely to register full-time their first semester. They had an average age that was fully four years older than new freshmen. They also tended to get higher grades their first semester at Boise State than did new freshmen.

Most students who were transfers were still classified as freshmen (591 or 77% of the group) indicating that they brought 25 or fewer credits with them. Of the remaining transfers, 13% (99) were sophomores, 8% (59) were juniors, and 2% (18) were seniors. The number of credits they transferred to BSU ranged from zero credits to 199, with the average being 32.4 credits.

[3] The remaining percentage of students did not report their ethnicity

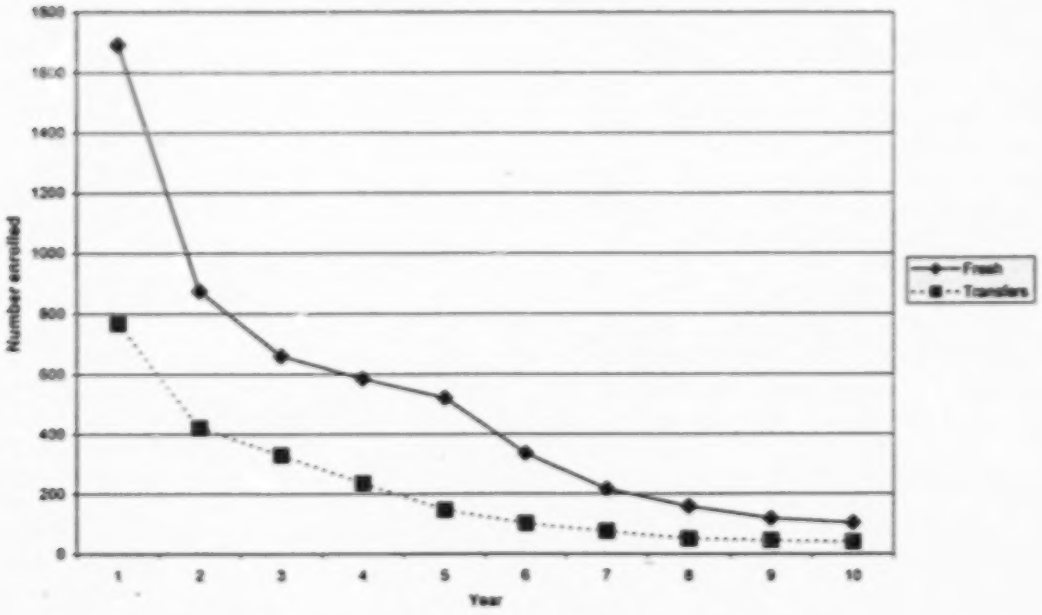
Re-enrollment was studied by checking each fall term file for the next ten years (through Fall 1998) to see who was still here. Students were considered graduated if they were included on any semester's graduation list through Spring semester of 1998. A student who re-enrolled after receiving a degree continued to be counted as a graduate. Students who had not received a degree or enrolled during a given fall semester were considered "gone," at least at that point in the study.

Patterns of Fall Term Enrollment

Most students who were going to leave, left in the first year. As shown by Figure 1, the steepest decline in the number of students enrolled occurred in the first year for both freshmen and transfers. For both groups, only 57% were enrolled one year later. Full details can be found in Appendix A.

Over a ten year period, about one-third of either group never returned (see Table 2). However, for the students who were not enrolled one year later, about 68% of the freshmen and 75% of the transfers did eventually re-enroll. These figures are similar to those reported by the National

Figure 1. Number of enrollments Over 10 Years



Center for Education Statistics where almost 30% of first-year students who enrolled in college left school before the beginning of their second year. Within five years 64% returned to some

type of postsecondary studies[4], but over half of the national group re-enrolled at a different institution.

Of particular interest were students who "stopped out" or showed discontinuous enrollment patterns since this pattern would effect both retention and graduation rates. About 30% of new freshmen overall and 25% of new transfers could be classified as "stop-outs" (see Table 2). However, when the group was reduced to include only those who enrolled for multiple terms, the percentage of "stop-outs" grew to about 45% of new freshmen and 38% of new transfers. These figures verify the belief of student services personnel who had surmised that a significant group of enrollees were stop-outs.

Table 2. Pattern of Fall Term Enrollment (Consecutive vs. Discontinuous)

	New Freshmen		New Transfers	
Pattern of Enrollment	Number	Percent	Number	Percent
Here only 1st Fall Term	564	33.3	261	34.0
Here, then left, then back	502	29.7	190	24.8
Here 1st & 2nd fall terms	212	12.5	90	11.7
Here first 3 fall terms	90	5.3	88	11.5
Here first 4 fall terms	63	3.7	61	8.0
Here first 5 fall terms	121	7.2	41	5.3
Here first 6 fall terms	96	5.7	23	3.0
Here first 7 fall terms	28	1.7	7	0.9
Here first 8 fall terms	10	0.6	3	0.4
Here first 9 fall terms	3	0.2	1	0.1
Here all 10 fall terms	3	0.2	2	0.3
Total	1692	100.00	767	100.00

Another enrollment pattern related to the length of time to graduation was full-time or part-time enrollment status. Most studies have assumed that freshmen who enroll their first semester as full-time students will continue to do so for their remaining semesters. For completing national reports (and therefore for subsequent national comparisons among colleges), students who enroll full-time their first semester are the ones tracked for the next four to six years to see how many graduate. The rationale is that these students should graduate if they take a full load and enroll for each major term. Those who work with students, however, dispute the assumption that those

[4] From the NCES report *Stopouts or Stayouts? Undergraduates Who Leave College in Their First Year, 1998.*

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who enroll full-time their first semester will continue to enroll full-time semester after semester. Table 3 contains data that sheds light on this issue.

Table 3. Pattern of Enrollment Based on First Semester Full-time or Part-time Status

	New Freshmen		New Transfers	
	Enrolled First Semester as:		Enrolled First Semester as:	
Percent who were:[5]	Full-time	Part-time	Full-time	Part-time
All students				
Always PT enrollees	0.00	51.99	0.00	59.16
Mainly PT enrollees	3.40	10.54	4.16	11.83
Half PT, half FT	7.51	13.35	7.13	11.83
Mainly FT enrollees	22.06	24.12	19.80	17.18
Always FT enrollees	67.04	0.00	68.91	0.00
Total percent	100.0	100.0	100.0	100.0
Total in group	1265	427	505	262
Students who enrolled more than once				
Always PT enrollees	0.00	24.35	0.00	31.41
Mainly PT enrollees	5.02	16.61	6.00	19.87
Half PT, half FT	11.09	21.03	10.29	19.87
Mainly FT enrollees	32.56	38.01	28.57	28.85
Always FT enrollees	51.34	0.00	55.14	0.00
Total percent	100.0	100.0	100.0	100.0
Total in group	857	271	350	156

For new freshmen who started full-time, about two-thirds always enrolled as full-time students during their tenure at Boise State. When students who enrolled only for Fall 1989 were removed, this percentage dropped to slightly over 50%. However, over 80% continued to enroll *mainly* as full-time students, i.e., for more than half of their semesters of enrollment.

Freshmen who began as part-timers were more likely to move to full-time status than vice-versa. For all part-time freshmen, only 52% continued to enroll exclusively as part-timers. When the early leavers were removed, the percentage dropped to 24%. Only about 40% continued to enroll exclusively or mainly as part-time students. This group probably includes students who wanted to "start slow" to make sure they could handle the work before committing to full-time

[5] Calculations based on counting the number of semesters of full-time enrollment and dividing by the total number of semesters enrolled, e.g., a student who enrolled 2 semesters at 12 or more credits out of 3 semesters of total enrollment would be counted as mainly full-time

status. Indeed, 38% eventually became mainly full-time students despite their start as part-time freshmen.

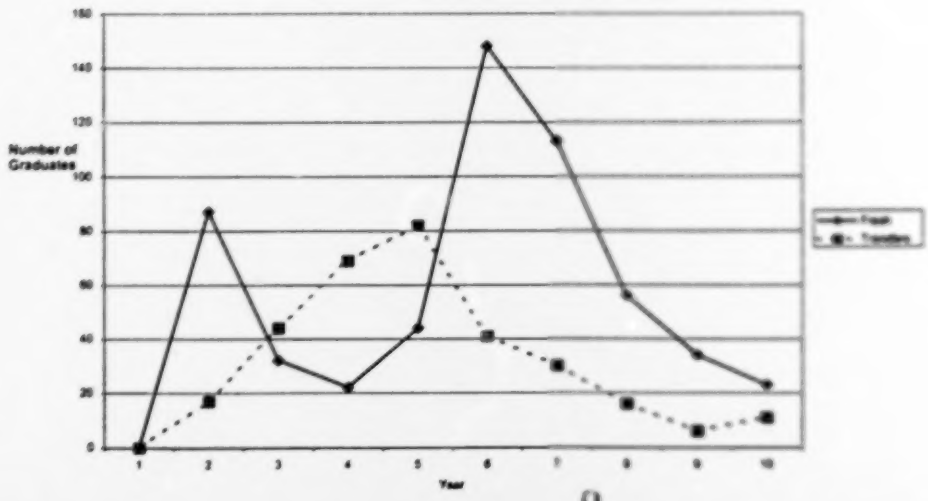
The pattern was somewhat different for transfer students. While full-time transfer students showed a pattern similar to the freshmen, part-time transfers were more likely to remain part-timers than their freshmen counterparts. For example, over 50% of the part-time transfers who continued to enroll remained mainly or exclusively part-timers compared to about 40% of freshmen. Perhaps transfer students were already aware of what college required so they had less need to change the number of credits taken.

In all cases, the data demonstrate that the number of credits students take their first semester is no sure-fire predictor of how many credits they will take in succeeding semesters. Just because students begin as full-time does not mean they will continue to enroll full-time, taking enough credits to graduate in the "typical" four years. When combined with the finding that many students stop out, skipping one or more semesters of consecutive enrollment, the reason for low four-year graduation rates becomes even clearer.

Remaining Enrolled and Graduating

Because transfer students typically arrive with at least some college credits, we would expect that they would reach graduation earlier than new freshmen. Eventually, however, the number and percentage of freshmen graduating should reach those of transfer students. Figure 2 shows the number of freshmen and transfers graduating over the ten year period.
Note that freshmen graduations first peak after two years—undoubtedly due to associates

Figure 2. Number of Graduates Over 10 Years



degrees and certificates. The largest number of freshmen, however, graduate after six years, with the second largest number graduating after seven. The bulk of transfers, however, graduate after five years, with the second largest number graduating after four.

Figure 3 provides a different perspective on the graduation data. In this case the data have been reconfigured to show the cumulative percentage of the group that has graduated at the end of each year. The most noticeable thing about the data when presented in this way is that transfer students quickly overtake the percentage of freshmen graduating and they maintain that lead over the ten year period. In other words, transfers are more likely to graduate in the long term than are freshmen.

Figure 3. Percent of Group Graduated

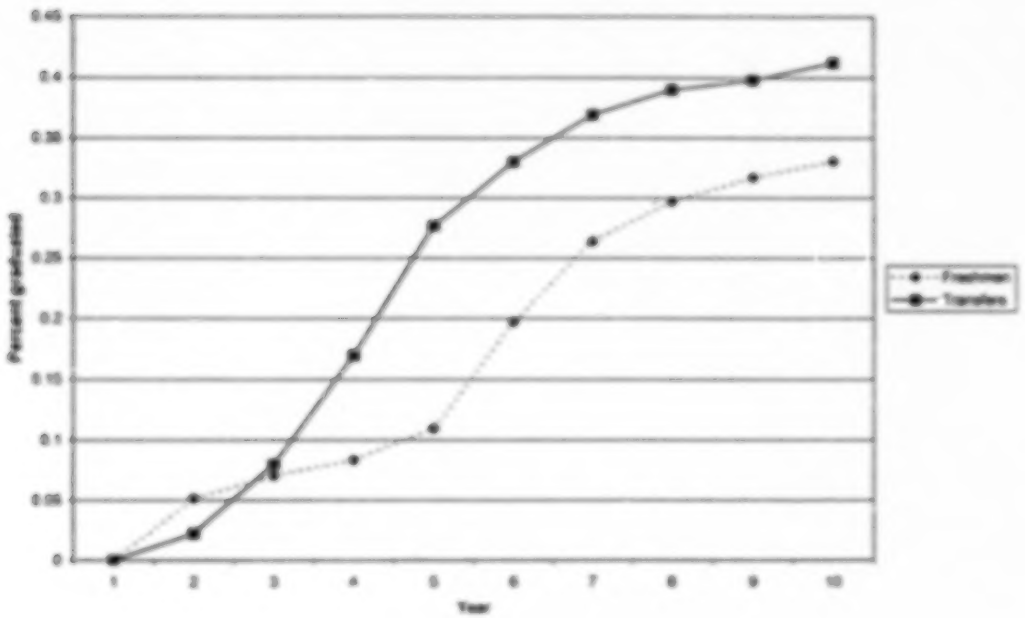


Table 4 displays the status of freshmen and transfers after four, six, and ten years. For freshmen, only about 10% have graduated from Boise State after the "traditional" four years at college. After six years (the time period for federal reporting on graduation rates), almost one-quarter have graduated. Increasing the time period to ten years improves the freshmen graduation rate to 33%. After ten years, 4% of new freshmen are still enrolled at the university. Theoretically, then, the percentage of 1989 freshmen graduating will peak at about 37%. The data indicate that

it is unlikely that students who are not enrolled after six years will return and graduate from Boise State.

The graduation rates for transfer students are better than freshmen rates at all three points in time. After four years, the percentage of transfers graduating is 2.5 times greater than freshmen (28% vs. 11%). After ten years, over 40% of transfer students have graduated compared to 33% of freshmen.

Table 4. Status of New Freshmen and Transfers after Four, Six, and Ten Years

	New Freshmen		New Transfers	
Status:	Number	Percent	Number	Percent
Standing in Fall 1993 (after four years)				
Still enrolled	508	30.02	133	17.34
Not enrolled/not graduated	999	59.04	422	55.02
Graduated	185	10.93	212	27.64
Enrolled or Graduated	697	40.95	345	54.98
Standing in Fall 1995 (after six years)				
Still enrolled	217	12.83	75	9.78
Not enrolled/not graduated	1065	62.94	428	55.80
Graduated	410	24.23	264	34.42
Enrolled or Graduated	627	37.06	339	44.20
Standing in Fall 1998 (after ten years)				
Still enrolled	69	4.08	26	3.39
Not enrolled/not graduated	1064	62.88	425	55.41
Graduated	559	33.04	316	41.20
Enrolled or Graduated	628	37.12	342	44.59

To better understand who was re-enrolling and graduating, freshmen data were further analyzed for differences based on gender, ethnicity, and full- or part-time enrollment the first semester. No statistically significant differences were found for either gender or ethnicity at any of the three points in time (1993, 1995, 1998). However, those freshmen who began as full-time students were statistically more likely to have graduated in 1993 (χ^2=50.207, DF=2, p=.001), 1995 (χ^2=58.379, DF=2, p=.001), and 1998 (χ^2=56.575, DF=2, p=.001). Even after ten years, first-term full-time students were more than twice as likely to have graduated as part-time students. See Table 5 for details.

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Table 5. Status of Freshmen Based on Gender, Ethnicity, and Full- or Part-time Enrollment

		% in 1993 who were:		% in 1995 who were:		% in 1998 who were:	
		Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Gender	Female	29.90	11.16	12.24	25.79	4.33	35.32
	Male	30.17	10.66	13.52	22.37	3.77	30.30
Ethni-city	Minority	30.46	8.61	11.26	18.54	1.99	30.46
	White non-Hisp	30.08	11.22	13.08	24.90	4.18	33.47
Status 1st term	FT	30.99	13.75	11.94	28.85	3.64	38.02
	PT	27.17	2.58	15.46	10.54	5.39	18.27

For transfer students, gender also was not a significant factor in graduating. However, transfer students who were also minority group members were less likely to graduate in 1993 (χ^2=7.432, DF=2, p=.024), 1995 (χ^2=9.535, DF=2, p=.009), and 1998 (χ^2=8.057, DF=2, p=.018). Again, transfer students who enrolled full-time their first semester were more likely to have graduated at all three points in time: 1993 (χ^2=57.559, DF=2, p=.001), 1995 (χ^2=52.550, DF=2, p=.001), and 1998 (χ^2=42.621, DF=2, p=.001). In addition, students who started as juniors or seniors were more likely to graduate than freshmen or sophomores in 1993 (χ^2=32.773, DF=6, p=.001), 1995 (χ^2=25.499, DF=6, p=.001), and 1998 (χ^2=18.577, DF=6, p=.005). Exact figures are provided in Table 6.

Table 6. Status of Transfers Based on Gender, Ethnicity, Full- or Part-time Enrollment and Starting Class

		% in 1993 who were:		% in 1995 who were:		% in 1998 who were:	
		Enrolled	Graduated	Enrolled	Graduated	Enrolled	Graduated
Gender	Female	17.16	30.39	10.54	37.01	3.19	44.61
	Male	17.55	30.39	8.91	31.48	3.62	37.33
Ethnicity	Minority	21.13	14.08	12.68	18.31	1.41	28.17
	White non-Hisp	17.51	29.34	9.58	36.68	3.74	43.26
Status 1st term	FT	14.65	36.44	8.71	43.37	2.57	49.50
	PT	22.52	10.69	11.83	17.18	4.96	25.19
Began as:	freshman	18.10	23.18	10.83	30.29	3.72	37.39
	soph	18.18	35.35	8.08	41.41	3.30	48.48
	junior	11.86	52.54	5.08	57.63	1.69	61.02
	senior	5.56	50.00	0.00	55.56	0.00	61.11

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Summary and Conclusions

This study sought to discover how much graduation rates would increase if new students were given up to ten years to graduate after their initial term to enrollment. As part of this question, enrollment patterns were studied for consistency in enrollment, both in terms of enrolling every term and enrolling on a full- or part-time basis. Both new freshmen and new transfers from Fall 1989 were included to see if the groups differed in the likelihood of remaining enrolled and graduating.

Results confirmed that most students who were going to leave, left during the first year. About half failed to re-enroll one year later. However, most of these students did eventually return (68% for freshmen and 75% for transfers). For students who continued to enroll, about 45% of freshmen and 38% of transfers showed a pattern of enrolling, leaving, and then returning rather than continuously enrolling.

Many students also switched between full- and part-time enrollment status. For new full-time freshmen who continued to enroll, only about half were always enrolled as full-timers. For new part-time freshmen who continued their enrollment, a majority (76%) enrolled for at least one full-time semester. Transfers also switched back and forth frequently between full- and part-time status, but showed more consistency than the freshmen.

Perhaps the credits that transfer students bought with them to Boise State combined with their more consistent enrollment and prior knowledge of what to expect of college led to their consistently higher graduation rates compared to freshmen over the ten year period. After ten years, 41% of the new transfer students had graduated compared to 33% of freshmen.

The additional years helped improve graduation rates; only 11% of freshmen and 28% of transfers had graduated after four years. Even after ten years, 4% of freshmen and 3% of transfers were still enrolled, with several showing continuous enrollment across all that time.

These findings help explain some of the reasons behind the low graduation rates that Boise State experiences. Those who think that all students enroll full-time and register for every semester

are shown to be wrong by these data. On the other hand, the majority do enroll full-time and do so consistently. Their majority is slim, however, and probably will erode further in the future.

The findings further indicate that transfers are a valuable addition who bolster the number of students graduating. This group graduates earlier and more frequently. They perform better academically their first semester and have a steadier pattern of re-enrollment. Perhaps this is due to their earlier academic experiences. Being older, perhaps they are more goal-oriented than their freshmen counterparts. Whatever the reason(s), their presence is large at Boise State and has been unexplored in prior retention and graduation studies.

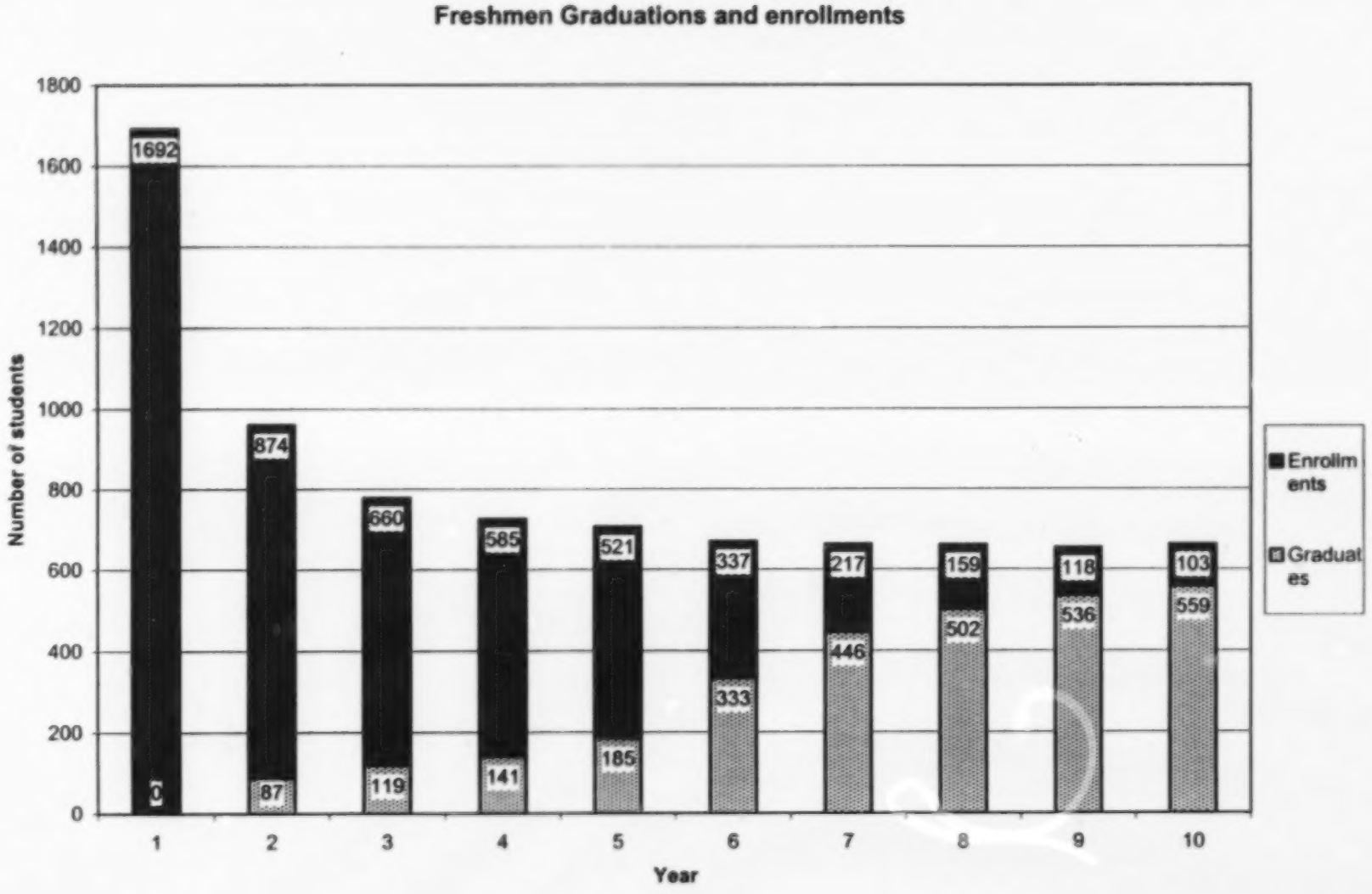
This report provides the basic information on enrollment and graduation over time. It is unclear, however, exactly how enrollment patterns, GPA, and transfer status interact with the probability of graduating over time. A future report will explore this topic.

Appendix A

APPENDIX A

Table A. Enrollment and Graduation Information for 1989 New Freshmen and Transfers

Year:	Number enrolled	Number graduated	Cumulative # graduated	Cumulative % graduated	Total enrolled or graduated	% enrolled or graduated
1989 Freshmen						
1	1692	0	0	0%	1692	100%
2	874	87	87	5%	961	57%
3	660	32	119	7%	779	46%
4	585	22	141	8%	726	43%
5	521	44	185	11%	706	42%
6	337	148	333	20%	670	40%
7	217	113	446	26%	663	39%
8	159	56	502	30%	661	39%
9	118	34	536	32%	654	39%
10	103	23	559	33%	662	39%
1989 Transfers						
1	767	0	0	0	767	100%
2	422	17	17	2%	439	57%
3	330	44	61	8%	391	51%
4	236	69	130	17%	366	48%
5	147	82	212	28%	359	47%
6	101	41	253	33%	354	46%
7	75	30	283	37%	358	47%
8	51	16	299	39%	350	46%
9	45	6	305	40%	350	46%
10	40	11	316	41%	356	46%



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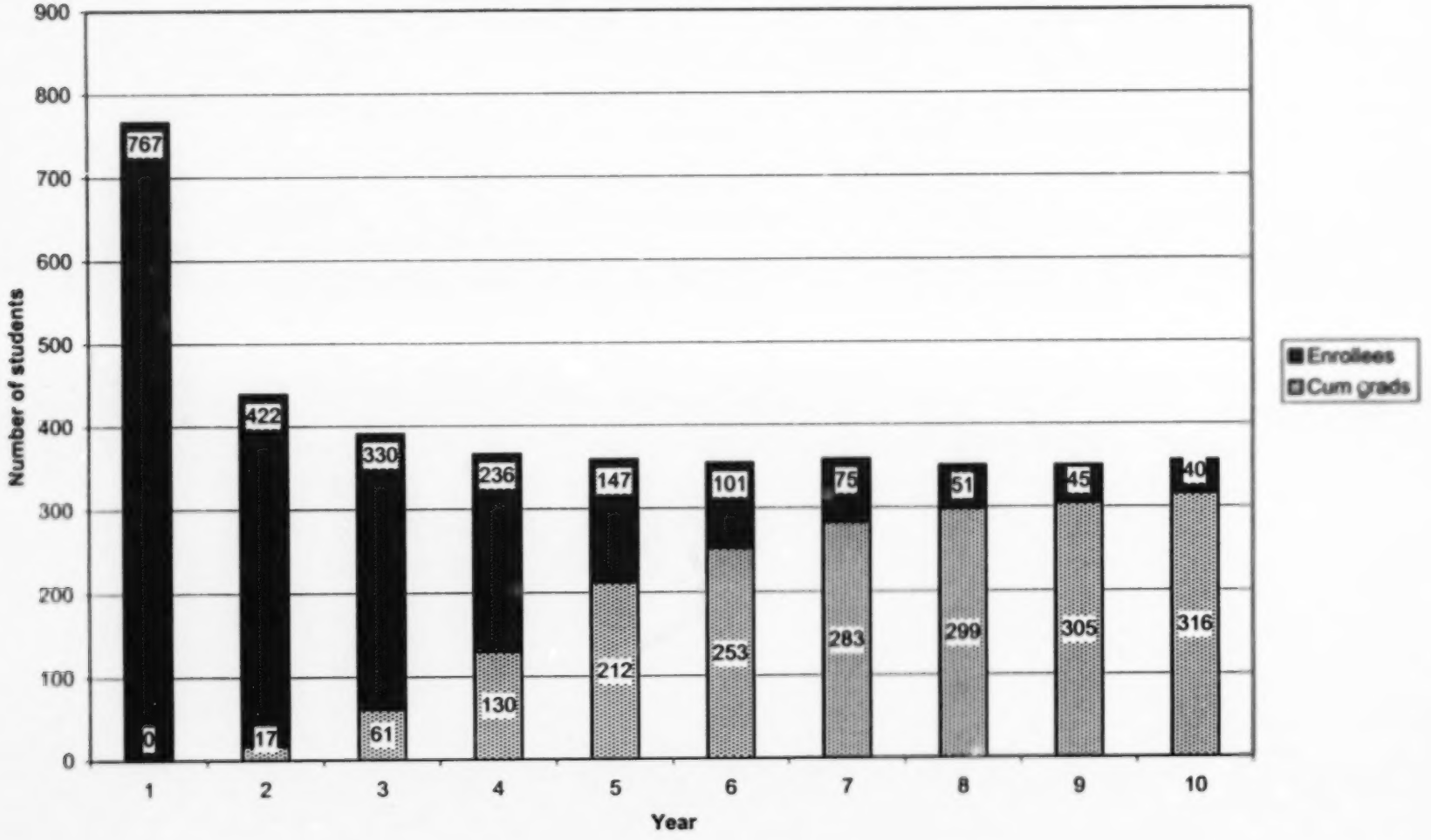
New Transfers Enrollment & graduation



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